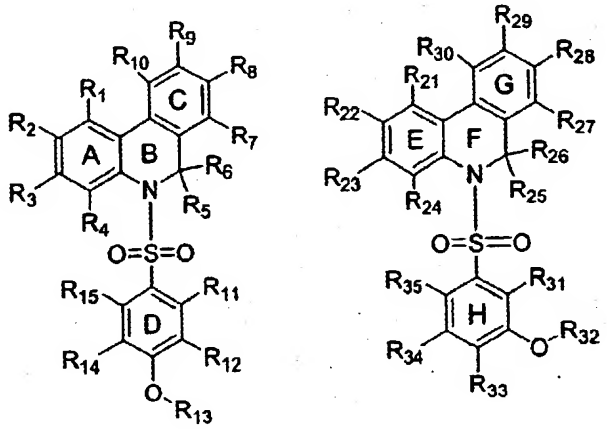
This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (original) A compound of formulae (I) or (II) having the structure



(I)

(II)

wherein

R_1, R_2, R_3, R_4, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, and R_{15} are each, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -C(O)$N(R)_2$; or are taken together with either R_{p+1} or R_{p-1} linked with an -alkylene-, or -X-alkylene- group;

R_5 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -C(O)$N(R)_2$; or R_5 may be taken together with either R_6 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_6 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -C(O)$N(R)_2$; or R_6

may be taken together with either R_5 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_{13} is R, R_{17}-X-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-(C_2-C_6)alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, -$C(O)NH_2$, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

X is O, -NR-, -$S(O)_m$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

m is 0, 1, or 2;

p is 2, 3, 6, 7, 8, 9, 12, 13, or 14;

R_{21}, R_{22}, R_{23}, R_{24}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{33}, R_{34}, and R_{35} are, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{q+1} or R_{q-1} linked with an -alkylene-, or -Y-alkylene- group;

R_{25} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{25} may be taken together with either R_{26} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{26} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{26} may be taken together with either R_{25} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{32} is R, R_{17}-Y-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

Y is O, -NR-, -$S(O)_n$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

n is 0, 1, or 2;

q is 22, 23, 26, 27, 28, 29, 32, 33, or 34;

or a pharmaceutically acceptable salt thereof.

2. (original) The compound according to claim 1, wherein the compound is of formula (I) or a pharmaceutical acceptable salt thereof.

3. (original) The compound according to claim 2, wherein R_{13} is hydrogen, or a pharmaceutically acceptable salt thereof.

4. (original) The compound according to claim 3, wherein

R_1, R_2, R_3, R_4, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, and R_{15} are each, independently, hydrogen, R_{17}, aryl-R_{16}-, R_{17}-X-R_{16}-, hydroxyalkyl, HO-R_{16}-, halogen, -OR, -COR, or -CO_2R;

R_5 and R_6 are each, independently, hydrogen or R_{17};

R_{16} is -alkylene-;

R_{17} is alkyl, aryl, heteroaryl, or perfluoroalkyl;

R is hydrogen or alkyl; or a pharmaceutically acceptable salt thereof.

5. (original) The compound according to claim 1, wherein the compound is of formula (II) or a pharmaceutical acceptable salt thereof.

6. (original) The compound according to claim 5, wherein R_{32} is hydrogen, or a pharmaceutically acceptable salt thereof.

7. (original) The compound according to claim 6, wherein

R_{21}, R_{22}, R_{23}, R_{24}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{33}, R_{34}, and R_{35} are each, independently, hydrogen, R_{17}, aryl-R_{16}-, R_{17}-Y-R_{16}-, hydroxyalkyl, HO-R_{16}-, halogen, -OR, -COR, or -CO_2R;

R_{25} and R_{26} are each, independently, hydrogen or R_{17};

R_{16} is -alkylene-;

R_{17} is alkyl, aryl, heteroaryl, or perfluoroalkyl;

R is hydrogen or alkyl; or a pharmaceutically acceptable salt thereof.

8. (currently amended) The compound according to claim 1, which is

~~a)~~ 4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~b)~~ 4-{[(*S*)-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~c)~~ 4-{[(*R*)-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~d)~~ 4-[(2-bromo-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~e)~~ 2-methyl-4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~f)~~ 4-[(2-bromo-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;
~~g)~~ 4-[(6-butylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~h)~~ 4-[(2-bromo-6-butylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~i)~~ 4-[(6-phenylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~j)~~ 4-{[(*S*)-6-phenylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~k)~~ 4-{[(*R*)-6-phenylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~l)~~ 4-[(2-bromo-6-phenylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~m)~~ 2-bromo-4-[(2-bromo-6-phenylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~n)~~ 4-[(6-*tert*-butylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~o)~~ 4-{[(*R*)-6-*tert*-butylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~p)~~ 4-{[(*S*)-6-*tert*-butylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~q)~~ 4-[(2-bromo-6-*tert*-butylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~r)~~ 4-[(6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~s)~~ 4-[(2-bromo-6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;
~~t)~~ 4-[(6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;
~~u)~~ 4-[(2-bromo-6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;
~~v)~~ 4-{[(*S**)-6-[(*R**)-1-methylpropyl]phenanthridin-5(6*H*)-yl]sulfonyl}phenol;
~~w)~~ 4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]benzene-1,2-diol;

~~x)~~ 2-hydroxy-5-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]benzoic acid;

~~y)~~ ethyl 2-ethoxy-5-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]benzoate;

~~z)~~ 2-(hydroxymethyl)-4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~aa)~~ 2-hydroxy-5-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]benzaldehyde;

~~bb)~~ 4-[(6-ethyl-2-thien-3-ylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~cc)~~ 4-{[6-ethyl-2-(3-methoxyphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~dd)~~ 3-{6-ethyl-5-[(4-hydroxyphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}phenol;

~~ee)~~ 4-[(2-dibenzo[*b,d*]furan-4-yl-6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~ff)~~ 4-[(8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~gg)~~ 4-{[(*S*)-8-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~hh)~~ 4-{[(*R*)-8-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~ii)~~ 4-[(8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~jj)~~ 5-[(4-hydroxyphenyl)sulfonyl]-6-methyl-5,6-dihydrophenanthridin-9-ol;

~~kk)~~ 5-[(4-hydroxy-3-methylphenyl)sulfonyl]-6-methyl-5,6-dihydrophenanthridin-9-ol;

~~ll)~~ 5-[(4-hydroxy-3-methylphenyl)sulfonyl]-6-methyl-5,6-dihydrophenanthridin-7-ol;

~~mm)~~ 5-[(4-hydroxyphenyl)sulfonyl]-6-methyl-5,6-dihydrophenanthridin-7-ol;

~~nn)~~ 4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~oo)~~ 4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~pp)~~ 4-[(6-ethyl-7-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~qq)~~ 4-[(6-ethyl-9-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~rr)~~ 4-[(2-bromo-6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~ss)~~ 4-[(2-bromo-8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~tt)~~ 2-chloro-4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~uu)~~ 4-[(6-ethyl-8-fluoro-2-phenylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~vv)~~ 3-[(8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~ww)~~ 2-fluoro-4-[(8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~xx)~~ 4-[(8-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]benzene-1,2-diol;

~~yy)~~ 4-[(6-ethyl-8-fluoro-2-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~zz)~~ 4-[(6-ethyl-8-fluoro-2-thien-3-ylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~aaa)~~ 4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenyl 3,3-dimethylbutanoate;

~~bbb)~~ 4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenyl propionate;

~~ccc)~~ 4-[(6-ethyl-8-fluorophenanthridin-5(6*H*)-yl)sulfonyl]phenyl benzoate;

~~ddd)~~ 2-fluoro-4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~eee)~~ 4-[(2-bromo-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]-2-fluorophenol;

~~fff)~~ 4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]-2-(trifluoromethyl)phenol;

~~ggg)~~ 2,6-dimethyl-4-[(6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~hhh)~~ 4-[(6,8-dimethylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~iii)~~ 4-[(8-chloro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~jjj)~~ 4-[(2-bromo-8-chloro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~kkk)~~ 2-{6-ethyl-5-[(4-hydroxyphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}phenol;

~~lll)~~ 4-{[6-ethyl-2-[4-(methylthio)phenyl]phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~mmm)~~ 4-{[6-ethyl-2-[(*E*)-2-phenylethenyl]phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~nnn)~~ 4-{[2-(1,1'-biphenyl-4-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~ooo)~~ 4-{[2-(3-chlorophenyl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~ppp)~~ 4-[(6-ethyl-2-quinolin-8-ylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~qqq)~~ 4-[(6-ethyl-2-phenylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~rrr)~~ 4-{[6-ethyl-2-(2-methylphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~sss)~~ 4-[(6-ethyl-2-thianthren-1-ylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

~~ttt)~~ 4-{[2-(1-benzofuran-2-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~uuu)~~ 4-{[6-ethyl-2-(4-hydroxyphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~vvv)~~ 4-{[2-(2-chlorophenyl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~www)~~ 4-{[6-ethyl-2-(4-ethylphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}phenol;

~~xxx)~~ 1-(5-{6-ethyl-5-[(4-hydroxyphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}thien-2-yl)ethanone;

~~yyy)~~ 5-{6-ethyl-5-[(4-hydroxyphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}pyrimidine-2,4-diol;

~~zzz)~~ 4-{[6-ethyl-2-(2-hydroxyphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~aaaa)~~ 4-[(6-ethyl-2-thien-3-ylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~bbbb)~~ 4-{[6-ethyl-2-[4-(methylthio)phenyl]phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~eeee)~~ 4-{[6-ethyl-2-[(*E*)-2-phenylethenyl]phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~dddd)~~ 4-{6-ethyl-5-[(4-hydroxy-3-methylphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}benzene-1,2-diol;

~~eeee)~~ 4-{[2-(1,1'-biphenyl-4-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~ffff)~~ 4-{[6-ethyl-2-(3-hydroxyphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~gggg)~~ 4-{[2-(3-chlorophenyl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~hhhh)~~ 4-{[6-ethyl-2-[(*E*)-hept-1-enyl]phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~iiii)~~ 4-[(6-ethyl-2-pyridin-4-ylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~jjjj)~~ 4-[(6-ethyl-2-quinolin-8-ylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~kkkk)~~ 4-{[6-ethyl-2-(2-methylphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~llll)~~ 4-{[2-(1-benzothien-2-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~mmmm)~~ 4-{[2-(1-benzothien-3-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~nnnn)~~ 4-[(2-dibenzo[*b*,*d*]furan-4-yl-6-ethylphenanthridin-5(6*H*)-yl)sulfonyl]-2-methylphenol;

~~oooo)~~ 4-{[2-(1-benzofuran-2-yl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~pppp)~~ 4-{[6-ethyl-2-(4-hydroxyphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~qqqq)~~ 4-{[2-(2-chlorophenyl)-6-ethylphenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~rrrr)~~ 4-{[6-ethyl-2-(4-ethylphenyl)phenanthridin-5(6*H*)-yl]sulfonyl}-2-methylphenol;

~~ssss)~~ 1-(5-{6-ethyl-5-[(4-hydroxy-3-methylphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}thien-2-yl)ethanone;

~~tttt)~~ 5-{6-ethyl-5-[(4-hydroxy-3-methylphenyl)sulfonyl]-5,6-dihydrophenanthridin-2-yl}pyrimidine-2,4-diol~~;~~;

4-{[(6*R*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-{[(6*S*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

3-{[(6*R*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

3-{[(6*S*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-{[(6*S*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

4-{[(6*R*)-3,8-difluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

4-[(3-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-[(3-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-{[(6*R*)-3-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

3-{[(6*S*)-3-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-[3-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl]benzene-1,3-diol;

4-{[(6*R*)-3-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

4-{[(6*S*)-3-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

4-[(2-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-[(2-fluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

4-[(3,9-difluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-[(3,9-difluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

4-[(2,9-difluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-[(2,9-difluoro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-[(3-chloro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

3-{[(6*R*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

3-{[(6*S*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-[(3-chloro-6-methylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

4-{[(6*R*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-{[(6*S*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenol;

4-{[(6*R*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

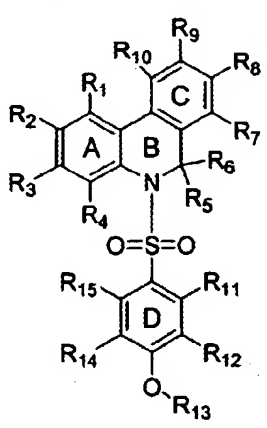
4-{[(6*S*)-3-chloro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}benzene-1,3-diol;

4-{[(6*S*)-8-fluoro-6-methylphenanthridin-5(6*H*)-yl]sulfonyl}phenyl sulfamate;

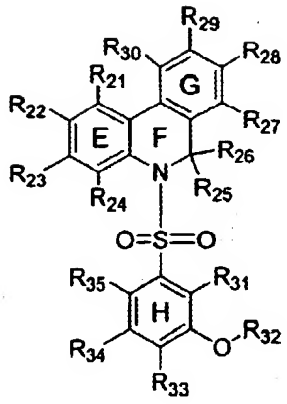
4-[(6-ethyl-8-fluoro-2-pyridin-3-ylphenanthridin-5(6*H*)-yl)sulfonyl]phenol;

or a pharmaceutically acceptable salt thereof.

9. (original) A pharmaceutical composition, which comprises a compound of formulae (I) or (II) having the structure



(I)



(II)

wherein

R_1, R_2, R_3, R_4, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, and R_{15} are each, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{p+1} or R_{p-1} linked with an -alkylene-, or -X-alkylene- group;

R_5 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_5 may be taken together with either R_6 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_6 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_6 may be taken together with either R_5 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_{13} is R, R_{17}-X-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-(C_2-C_6)alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, -C(O)NH_2, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

X is O, -NR-, -S(O)$_m$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

m is 0, 1, or 2;

p is 2, 3, 6, 7, 8, 9, 12, 13, or 14;

R_{21}, R_{22}, R_{23}, R_{24}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{33}, R_{34}, and R_{35} are, independently, hydrogen, R_{17}; monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2$NR-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{q+1} or R_{q-1} linked with an -alkylene-, or -Y-alkylene- group;

R_{25} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{25} may be taken together with either R_{26} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{26} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{26} may be taken together with either R_{25} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{32} is R, R_{17}-Y-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

Y is O, -NR-, -S(O)$_n$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

n is 0, 1, or 2;

q is 22, 23, 26, 27, 28, 29, 32, 33, or 34;

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

10. (currently amended) A method of treating ~~or inhibiting~~ chronic inflammatory disease in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

11. (currently amended) A method of treating ~~or inhibiting~~ rheumatoid arthritis, spondyloarthropathies, osteoarthritis, psoriatic arthritis, or juvenile arthritis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

12. (currently amended) A method of treating ~~or inhibiting~~ inflammatory bowel disease, Crohn's disease, ulcerative colitis, or indeterminate colitis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

13. (currently amended) A method of treating ~~or inhibiting~~ psoriasis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

14. (currently amended) A method of treating ~~or inhibiting~~ asthma or chronic obstructive pulmonary disease in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

15. (currently amended) A method of treating ~~or inhibiting~~ stroke, ischemia, or reperfusion injury in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

16. (currently amended) A method of lowering cholesterol, triglycerides, Lp(a), and LDL levels; ~~inhibiting or~~ treating hypercholesteremia, hyperlipidemia, cardiovascular disease, atherosclerosis, acute coronary syndrome, peripheral vascular disease, restenosis, or vasospasm in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

17. (currently amended) A method of treating ~~or inhibiting~~ Alzheimer's disease, cognitive decline, or senile dementia in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

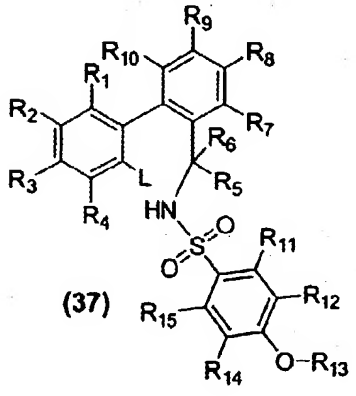
18. (currently amended) A method of treating ~~or inhibiting~~ type II diabetes in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

19. (currently amended) A method of treating ~~or inhibiting~~ sepsis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of claim 1.

20. (new) The compound according to claim 2, wherein R_{13} is $-S(O)_2NH_2$, or a pharmaceutically acceptable salt thereof.

21. (new) The compound according to claim 5, wherein R_{32} is $-S(O)_2NH_2$, or a pharmaceutically acceptable salt thereof.

22. (new) A process comprising providing a sulfonamide of formula 37:



(37)

wherein

R_1, R_2, R_3, R_4, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, and R_{15} are each, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl,

$HO-R_{16}$-, R_{17}-X-R_{16}-, $HS-R_{16}$-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, $-N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, $-SO_3R$, $-S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, $-C(NH_2)$=NR, $-CO_2R$, -OC(O)R, or $-C(O)N(R)_2$; or are taken together with either R_{p+1} or R_{p-1} linked with an -alkylene-, or -X-alkylene- group;

R_5 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, $HO-R_{16}$-, R_{17}-X-R_{16}-, $HS-R_{16}$-, -CR(O), $-CO_2R$, or $-C(O)N(R)_2$; or R_5 may be taken together with either R_6 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_6 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, $HO-R_{16}$-, R_{17}-X-R_{16}-, $HS-R_{16}$-, -CR(O), $-CO_2R$, or $-C(O)N(R)_2$; or R_6 may be taken together with either R_5 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_{13} is R, R_{17}-X-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, $-SO_3R$, $-S(O)_2N(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

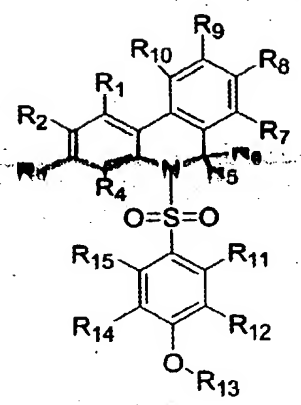
R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-$(C_2$-$C_6)$alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, $-C(O)NH_2$, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

X is O, -NR-, $-S(O)_m$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

m is 0, 1, or 2; and

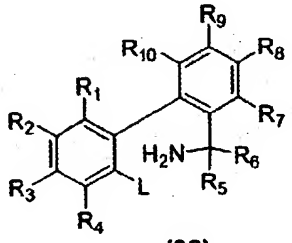
p is 2, 3, 6, 7, 8, 9, 12, 13, or 14; and

treating the sulfonamide of formula 37 with potassium carbonate to produce a phenanthridine of formula I:



(I)

23. (new) The process of claim 22 further comprising providing the S enantiomer of the biphenylamine of formula 36:

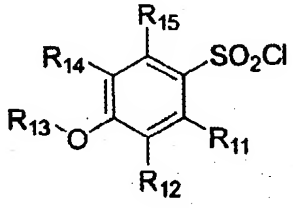


(36)

wherein

L is fluorine or chlorine; and

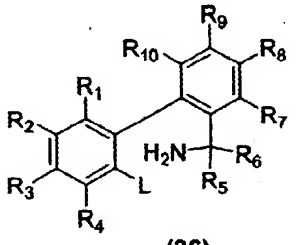
reacting the S enantiomer of the biphenylamine of formula 36 with a compound of formula 3 or an anhydride:



(3)

to produce a sulfonamide of formula 37.

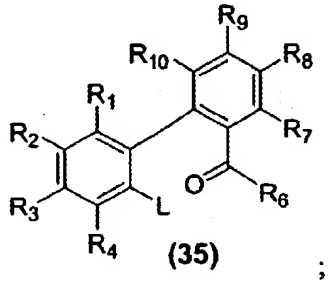
24. (new) The process of claim 23 further comprising providing a biphenylamine of formula 36:



(36) ; and

separating the biphenylamine of formula 36 into its respective enantiomers.

25. (new) The process of claim 24 further comprising providing a compound of formula 35:

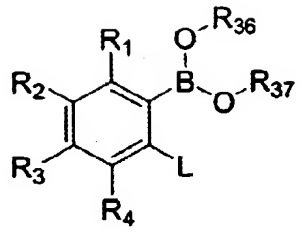


(35) ;

reacting the compound of formula 35 with an ammonium source optionally in the presence of an acid catalyst to produce an intermediate imine; and

reducing the intermediate imine with a hydride source to produce a biphenylamine of formula 36.

26. (new) The process of claim 25 further comprising providing a compound of formula 33:

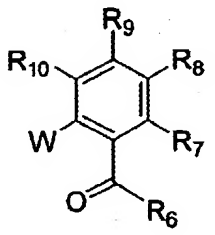


(33)

wherein

R_{36} and R_{37} are, independently, hydrogen or (C_1-C_4) lower straight chain or (C_3-C_6) branched chain alkyl, or R_{36} and R_{37} are taken together to form a pinacol moiety; and

reacting the compound of formula 33 in the presence of a coupling catalyst with a compound of formula 34:



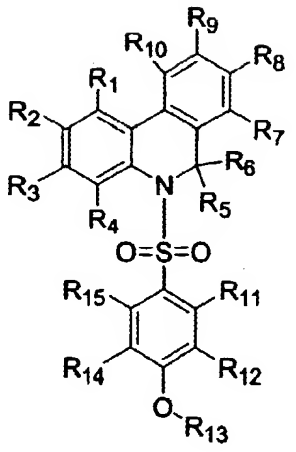
(34)

wherein

W is a chlorine, bromine, or iodine atom, or a triflate (-OSO_2CF_3) moiety;

to produce a compound of formula 35.

27. (new) A process for preparing a compound of formula I:



(I)

wherein

R_1, R_2, R_3, R_4, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, R_{14}, and R_{15} are each, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{p+1} or R_{p-1} linked with an -alkylene-, or -X-alkylene- group;

R_5 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_5 may be taken together with either R_6 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_6 is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-X-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_6 may be taken together with either R_5 or R_7 and linked with an -alkylene- or -X-alkylene- group;

R_{13} is R, R_{17}-X-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-(C_2-C_6)alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, -C(O)NH_2, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

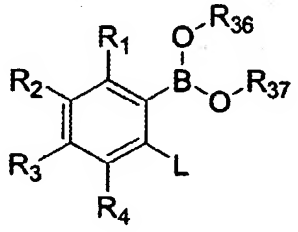
X is O, -NR-, -S(O)$_m$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

m is 0, 1, or 2; and

p is 2, 3, 6, 7, 8, 9, 12, 13, or 14;

comprising

- reacting a compound of formula 33:



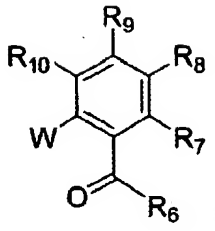
(33)

wherein

L is fluorine or chlorine; and

R_{36} and R_{37} are, independently, hydrogen or (C_1-C_4) lower straight chain or (C_3-C_6) branched chain alkyl, or R_{36} and R_{37} are taken together to form a pinacol moiety;

in the presence of a coupling catalyst with a compound of formula 34:

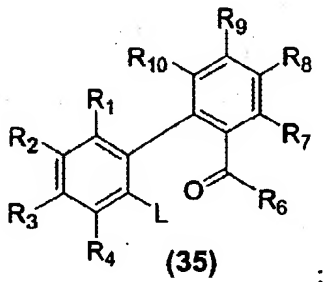


(34)

wherein

W is a chlorine, bromine, or iodine atom, or a triflate (-OSO_2CF_3) moiety;

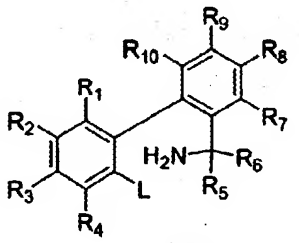
to produce a compound of formula 35:



(35) ;

- reacting the compound of formula 35 with an ammonium source optionally in the presence of an acid catalyst to produce an intermediate imine;

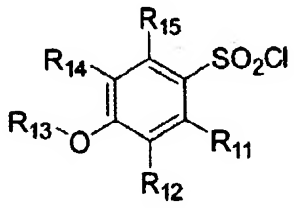
- reducing the intermediate imine with a hydride source to produce a biphenylamine of formula 36:



(36) ;

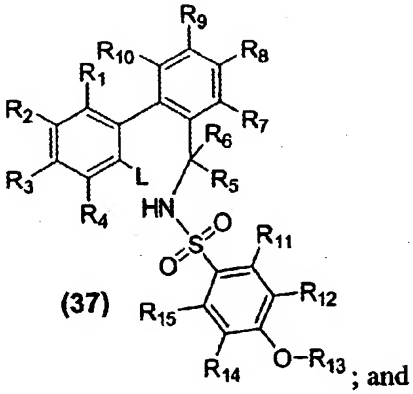
- separating the biphenylamine of formula 36 into its respective enantiomers;

- reacting the S enantiomer of the biphenylamine of formula 36 with a compound of formula 3 or an anhydride:



(3)

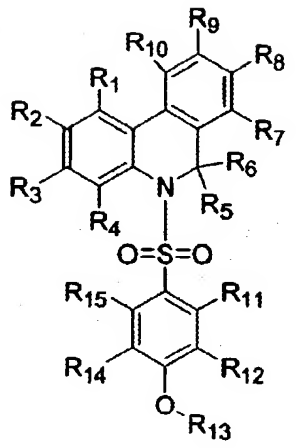
to produce a sulfonamide of formula 37:



(37)

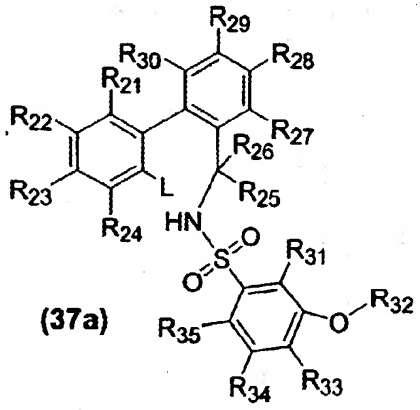
; and

- treating the sulfonamide of formula 37 with potassium carbonate to produce a phenanthridine of formula I:



(I)

28. (new) A process comprising providing a sulfonamide of formula 37a:



(37a)

wherein

R_{21}, R_{22}, R_{23}, R_{24}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{33}, R_{34}, and R_{35} are, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{q+1} or R_{q-1} linked with an -alkylene-, or -Y-alkylene- group;

R_{25} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{25}

may be taken together with either R_{26} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{26} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -C(O)N$(R)_2$; or R_{26} may be taken together with either R_{25} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{32} is R, R_{17}-Y-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2$N$(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

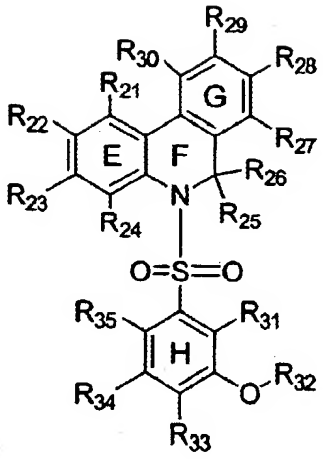
R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-(C_2-C_6)alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, -C(O)NH_2, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

Y is O, -NR-, -$S(O)_n$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

n is 0, 1, or 2; and

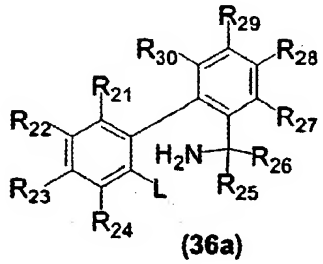
q is 22, 23, 26, 27, 28, 29, 32, 33, or 34; and

treating the sulfonamide of formula 37a with potassium carbonate to produce a phenanthridine of formula II:



(II)

29. (new) The process of claim 28 further comprising providing the S enantiomer of the biphenylamine of formula 36a:

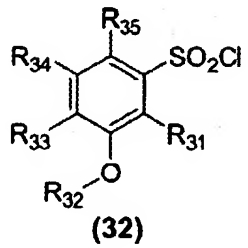


(36a)

wherein

L is fluorine or chlorine; and

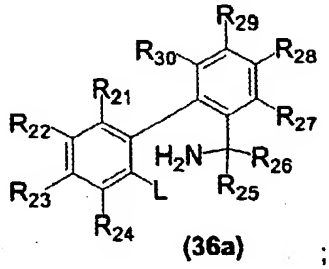
reacting the S enantiomer of the biphenylamine of formula 36a with a compound of formula 32 or an anhydride:



(32)

to produce a sulfonamide of formula 37a.

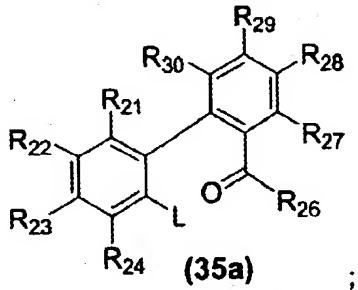
30. (new) The process of claim 29 further comprising providing a biphenylamine of formula 36a:



(36a) ; and

separating the biphenylamine of formula 36a into its respective enantiomers.

31. (new) The process of claim 30 further comprising providing a compound of formula 35a:

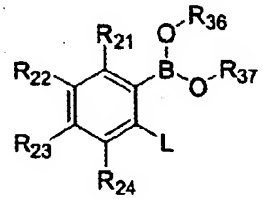


(35a) ;

reacting the compound of formula 35a with an ammonium source optionally in the presence of an acid catalyst to produce an intermediate imine; and

reducing the intermediate imine with a hydride source to produce a biphenylamine of formula 36.

32. (new) The process of claim 31 further comprising providing a compound of formula 33a:

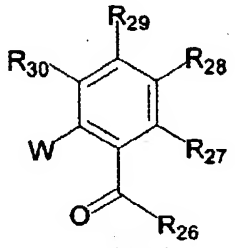


(33a)

wherein

R_{36} and R_{37} are, independently, hydrogen or (C_1-C_4) lower straight chain or (C_3-C_6) branched chain alkyl, or R_{36} and R_{37} are taken together to form a pinacol moiety; and

reacting the compound of formula 33a in the presence of a coupling catalyst with a compound of formula 34a:



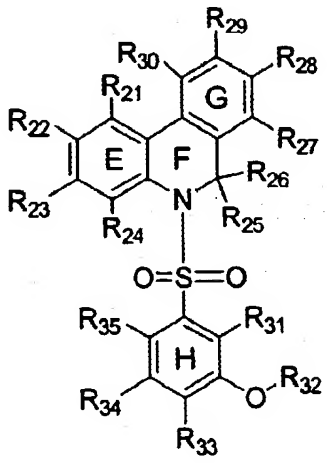
(34a)

wherein

W is a chlorine, bromine, or iodine atom, or a triflate (-OSO_2CF_3) moiety;

to produce a compound of formula 35.

33. (new) A process for preparing a compound of formula II:



(II)

wherein

R_{21}, R_{22}, R_{23}, R_{24}, R_{27}, R_{28}, R_{29}, R_{30}, R_{31}, R_{33}, R_{34}, and R_{35} are, independently, hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, R_{17}-SO_3-, R_{17}-$S(O)_2NR$-, -$N(R)_2$, -NR-$C(NH_2)$=NR, cyano, nitro, halogen, -OR, -SR, -SO_3R, -$S(O)_2N(R)_2$, -C(O)R, -C(R)=N-OR, -$C(NH_2)$=NR, -CO_2R, -OC(O)R, or -$C(O)N(R)_2$; or are taken together with either R_{q+1} or R_{q-1} linked with an -alkylene-, or -Y-alkylene- group;

R_{25} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{25} may be taken together with either R_{26} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{26} is hydrogen, R_{17}, monofluoroalkyl, monofluoroalkenyl, aryl-R_{16}-, heteroaryl-R_{16}-, hydroxyalkyl, HO-R_{16}-, R_{17}-Y-R_{16}-, HS-R_{16}-, -CR(O), -CO_2R, or -$C(O)N(R)_2$; or R_{26} may be taken together with either R_{25} or R_{27} and linked with an -alkylene- or -Y-alkylene- group;

R_{32} is R, R_{17}-Y-R_{16}-, R_{17}-S(O)-, R_{17}-$S(O)_2$-, -SO_3R, -$S(O)_2N(R)_2$, or D-glucuronidate;

R_{16} is -alkylene-, -cycloalkylene-, -alkylene-X-alkylene-, -alkylene-X-cycloalkylene-, -cycloalkylene-X-alkylene-, or -cycloalkylene-X-cycloalkylene-;

R_{17} is alkyl, aryl, heteroaryl, cycloalkyl, alkenyl, cycloalkenyl, alkynyl, alkenyl-X-alkylene-, cycloalkenyl-X-alkylene-, or perfluoroalkyl;

R is, independently, hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, monofluoroalkyl, perfluoroalkyl, aryl, arylalkyl, heteroaryl, heteroarylalkyl, hydroxy-(C_2-C_6)alkyl, alkoxyalkyl, alkylthioalkyl, formyl, acyl, alkoxycarbonyl, -$C(O)NH_2$, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminoalkyl, or dialkylaminoalkyl; or when an atom contains two R groups, the R groups may be taken together linked with an -alkylene- group;

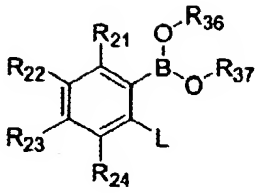
Y is O, -NR-, -$S(O)_n$-, -C(O)-, -OC(O)-, -C(O)O-, -NRC(O)-, or -C(O)NR-;

n is 0, 1, or 2;

q is 22, 23, 26, 27, 28, 29, 32, 33, or 34;

comprising

- reacting a compound of formula 33a:



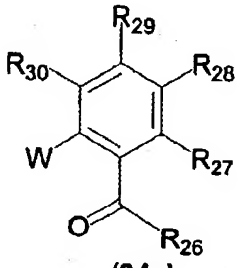
(33a)

wherein

L is fluorine or chlorine; and

R_{36} and R_{37} are, independently, hydrogen or (C_1-C_4) lower straight chain or (C_3-C_6) branched chain alkyl, or R_{36} and R_{37} are taken together to form a pinacol moiety;

in the presence of a coupling catalyst with a compound of formula 34a:

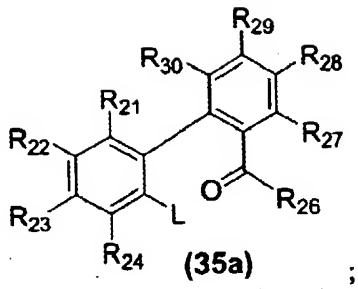


(34a)

wherein

W is a chlorine, bromine, or iodine atom, or a triflate (-OSO_2CF_3) moiety;

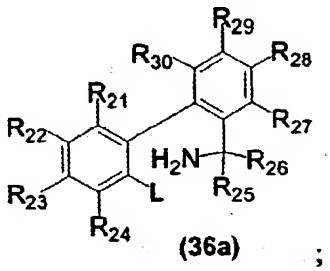
to produce a compound of formula 35a:



(35a) ;

- reacting the compound of formula 35a with an ammonium source optionally in the presence of an acid catalyst to produce an intermediate imine;

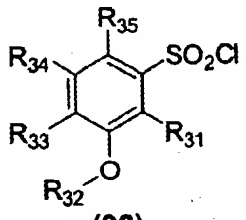
- reducing the intermediate imine with a hydride source to produce a biphenylamine of formula 36a:



(36a) ;

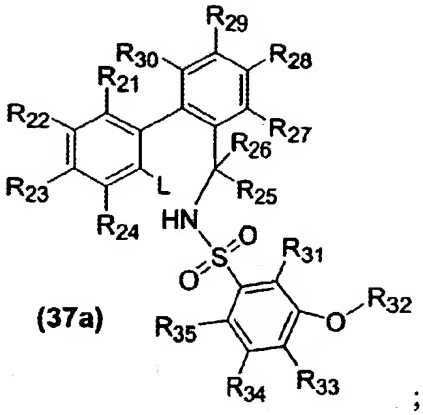
- separating the biphenyl amine of formula 36a into its respective enantiomers;

- reacting the S enantiomer of the biphenylamine of formula 36a with a compound of formula 32 or an anhydride:



(32)

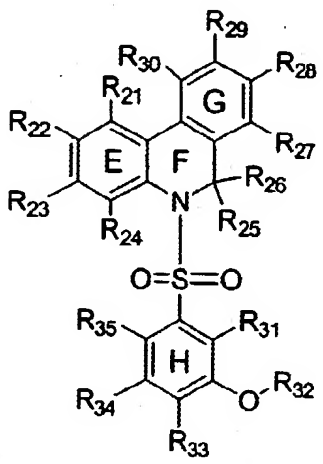
to produce a sulfonamide of formula 37a:



(37a)

; and

- treating the sulfonamide of formula 37a with potassium carbonate to produce a phenanthridine of formula II:



(II)